

[54] **BACK PACK TENT OF QUONSET DESIGN WITH SIDE OPENING FOR ENTRANCE**

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|-----------|---------|-------------------|---------|
| 758,642 | 5/1904 | Gotsche | 135/3 R |
| 3,474,802 | 10/1969 | Loring..... | 135/1 R |
| 3,536,083 | 10/1970 | Reynolds..... | 135/1 R |
| 3,356,098 | 12/1967 | Krutzikowsky..... | 135/1 R |
| 1,557,382 | 10/1925 | Sundback..... | 135/1 R |
| 2,345,377 | 3/1944 | Bowen | 135/1 R |
| 1,699,094 | 1/1929 | Chadirjian..... | 135/1 R |

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[52] **U.S. Cl.**..... 135/1 R, 135/14 V
 [51] **Int. Cl.**..... A45f 1/00
 [58] **Field of Search**..... 135/1 R, 4 R, 14 V, 14 D

[57] **ABSTRACT**

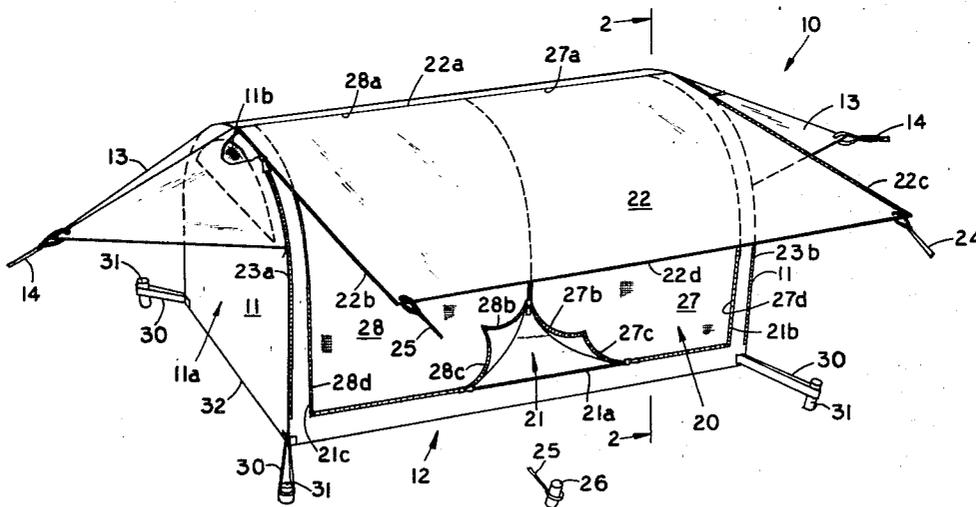
A tent which is collapsible and may be easily rolled into a pack for carrying, having a quonset shape and providing entry through an opening which extends along one side substantially the entire length of the tent.

[56] **References Cited**

UNITED STATES PATENTS

1,388,478 8/1921 Nelson 135/1 R

6 Claims, 7 Drawing Figures



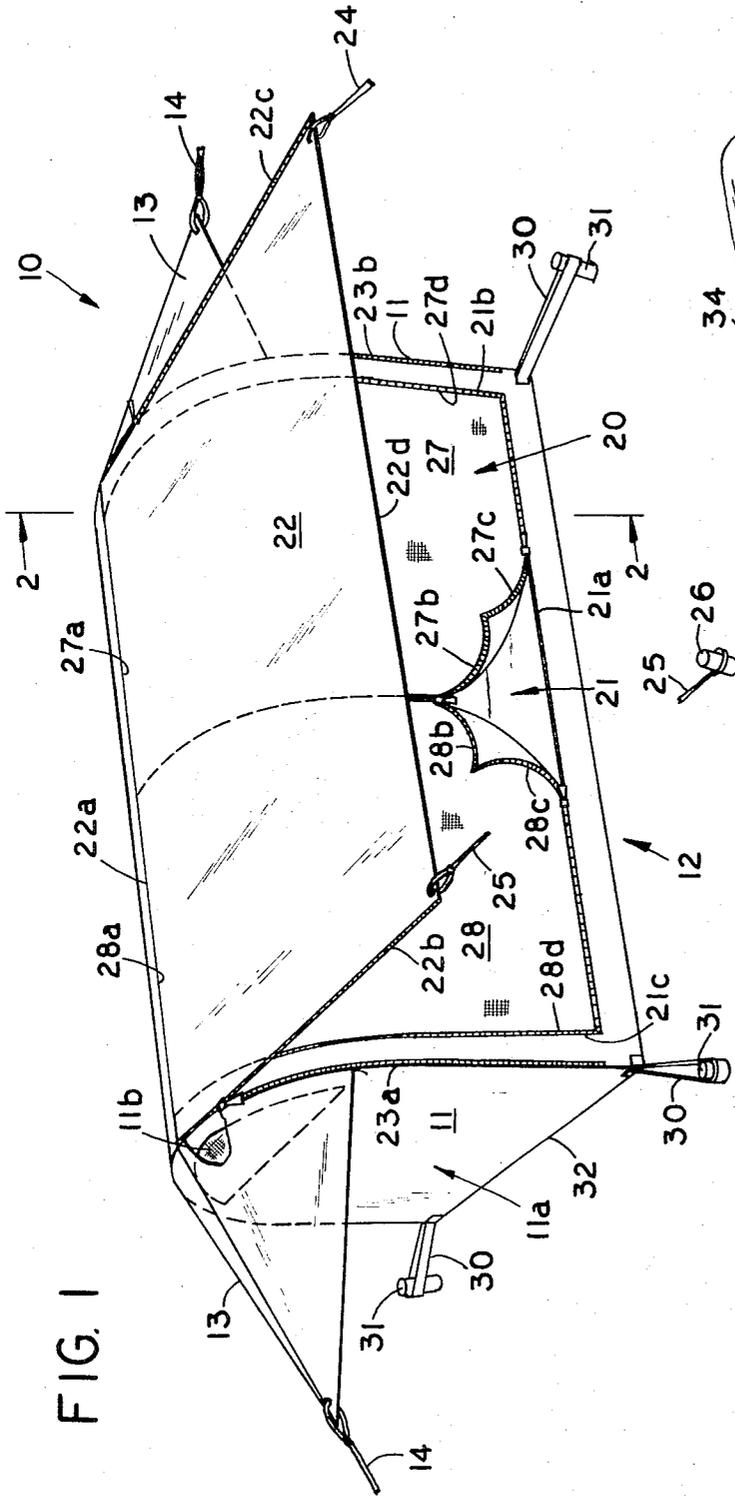


FIG. 1

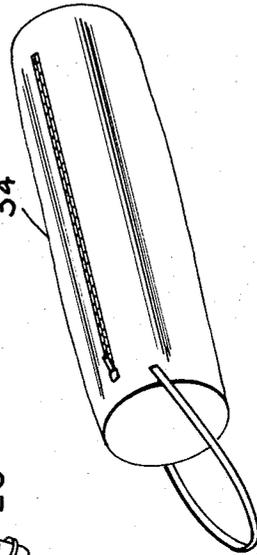


FIG. 7

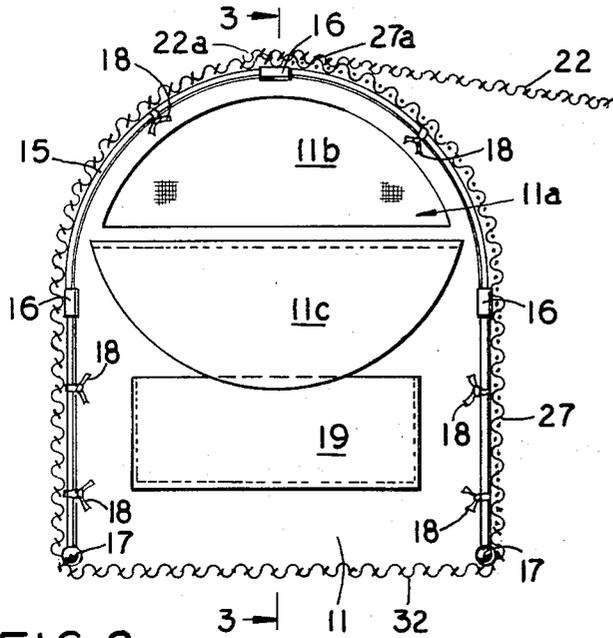


FIG. 2

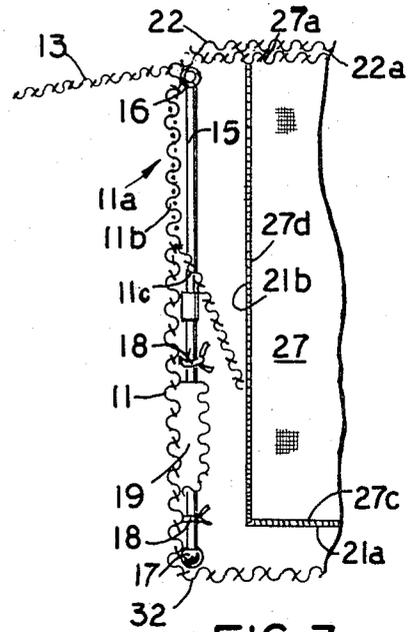


FIG. 3

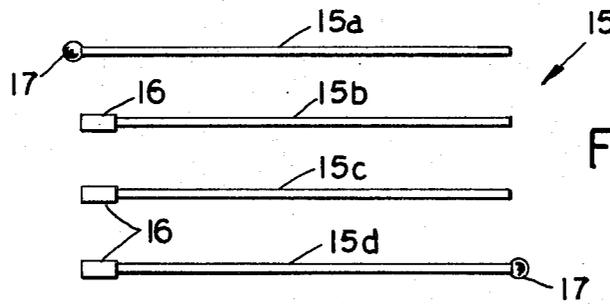


FIG. 4

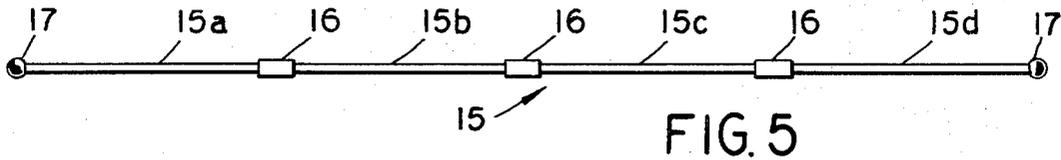


FIG. 5

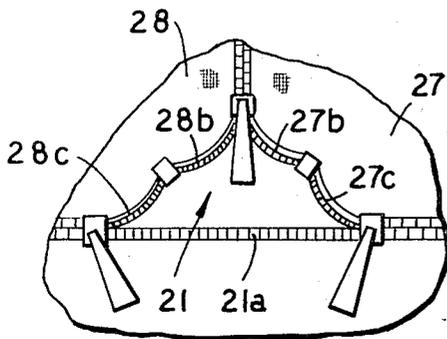


FIG. 6

BACK PACK TENT OF QUONSET DESIGN WITH SIDE OPENING FOR ENTRANCE

BACKGROUND AND SUMMARY OF THE INVENTION

As a result of rapid population growth, more and more people are engaging in camping as a leisure activity to relieve day to day stress. Areas which only recently were thought to be wilderness are now being penetrated as a matter of course as camping grounds close to population centers become crowded. Many desirable camping sites are in such rugged terrain it is necessary to travel on foot for several miles before reaching a site. Needless to say, equipment must be compact, light and safe.

The present invention concerns tents, and more specifically is directed to a tent construction generally having a quonset shape, that is, having continuous roof/sidewall lines which in cross-section are generally semi-elliptical. Such a configuration combines maximization of interior space with efficiency of design. The tent of the present invention is preferably of a size to accommodate one or two persons and may be easily backpacked by a single person after the tent is collapsed and rolled.

An important and inventive feature of the tent herein described is its simplicity of construction wherein only two frame members are provided, one at each end to support the end fabric panels and intermediate fabric portion of the tent. This construction makes possible the provision of an entry or side opening to the interior which extends substantially for the entire length of the tent. Furthermore, a sidewall portion of the tent integrally attached thereto is coincident with the side opening and may be fastened to seal the sidewall opening against the weather or may be extended to serve as a shelter flap adjacent to the sidewall opening.

Quonset shaped tents have been proposed for many years. Examples of such tent configurations may be seen in U.S. Pat. Nos. 659,981; 684,086; 3,474,802 and 3,480,023. However, each of these prior designs are complicated by a multitude of frame members which makes erection or dismantling difficult and makes impossible the convenience of a lengthwise entrance in the sidewall.

As will be seen from an examination of the following detailed specification describing a particular embodiment of the invention, these difficulties are overcome by the present invention.

FIG. 1 is a perspective view of the tent according to the present invention in its fully assembled condition;

FIG. 2 is a cross-sectional views taken along lines 2-2 of FIG. 1;

FIG. 3 is a partial cross-sectional view taken along lines 3-3 of FIG. 2;

FIGS. 4 and 5 are details of the frame members used at each end of the tent;

FIG. 6 is a detail showing the position of cooperative closure elements at the bottom center of the opening of the tent in FIG. 1, and

FIG. 7 is a pictorial representation of one form in which the tent may appear when it is fully disassembled and rolled for easy carrying.

Referring now to the drawing, a tent 10 constructed in accordance with the principles of the present inven-

tion has been illustrated. The tent 10 has generally a shell of suitable fabric which when erected will assume a quonset type shape, that is to say, end panel members 11 have a straight horizontal base which interconnects with upwardly sloping sides having semi-elliptical curvature. Section 12 intermediate panels 11 in cross-section are coincident with panels 11. The length of the tent will be that sufficient to accommodate a camper while sleeping prone within the tent.

Each of the end panels 11 defines an opening 11a therein for cross-ventilation. The openings 11a are covered by mesh 11b and may be covered from the interior by a flap 11c (see FIG. 2) to retain heat within the tent. Flaps 13 attached along the upper edges of panel 11 can be extended above the openings 11 by lines 14, connected to ground stakes (not shown). In this position the flaps 13 will prevent even a driving rain from entering the interior of the tent.

Immediately adjacent to each panel 11 are end frame members 15 comprising sections 15a-15d (see FIGS. 4 and 5) the members 15 are resilient plastic rods, sections 15b-15d having connectors 16 at one end thereof to receive and to join with each adjacent section. Round knobs 17 are provided at the terminal ends of the frame members 15 in order to prevent the ends from gouging the fabric of the tent. In their assembled position, the members 15 are bent from the position shown in FIG. 5 into the curvature of FIG. 2 and after placement adjacent to panels 11 are held to panels 11 by ties 18. The resilience of members 15 will cause them to exert an outward bow-like force upon the adjacent portion of section 12 at its juncture with each end panel 11. As further shown in FIG. 2, as a convenience, a pocket 19 is stitched to the interior side of the panel 11.

Referring to FIG. 1, it will be seen that the intermediate portion 12 of the tent 10 includes a sidewall 20 which defines a length-wise opening 21 to permit ingress to the tent. The length of the opening 21 will be substantially the length of the tent 10 between panels 11 which is possible in the construction of the tent according to the invention because the only supporting frame members are members 15 at each end. Coincident with the opening 21 is a flap 22 connected integrally along edge 22a to the intermediate section 12. The side edges 22b, 22c include zipper fastener means adapted to mate with fastener means 23a, 23b secured to the tent 10. Flap 22 is slightly longer than opening 21 and extends slightly beyond the opening 21 along its lower edge 22d. Thus the flap 22 acts as a closure of opening 21 when the edges thereof have been securely zippered to the body of the tent 10. Alternatively, the flap 22 when unfastened from the tent 10 may be raised to the position in FIG. 1 to act as a shelter above the opening 21 and areas adjacent thereto. The outer edges of the flap 22 are attached to lines 24, 25 which may be secured to ground stakes 26 (only one of which is shown).

As a further feature of the disclosed inventive structure, the opening 21 may be closed by mesh panels 27, 28 each being joined at their upper edges 27a, 28a to section 12. Each free edge 27b-27d, 28b-28d of mesh panels 27, 28 includes a zipper fastener means while the sides and lower edge 21a-21c of opening 21 include mating fastener means. The panels 27, 28 may thus be fastened along the sides and lower edge of opening 21 and may be zippered along a center joining

line to each other as indicated in FIG. 6. It will be understood that panels 27 and 28 as well as flap 22 may be fastened or unfastened to the body of the tent 10 while the occupant of the tent is sheltered within the interior thereof.

It will be observed that the corners of the tent 10 are ground-staked by ties 30 connected to stakes 31 which exert tension outwardly and longitudinally of the tent proper so as to maintain the lower portion of the tent in its extended position. As shown in FIG. 1, the lower portion of the tent 32 is of reinforced fabric to provide additional strength. While the ground staking of the corners of the tent 10 provides the lower structural support, lines 14 likewise provide structural rigidity by placing the section 12 in tension thus preventing the panels 11 and mounting frame members 15 from moving toward each other. The net result is an extremely stable structure which can withstand considerable strain from forces imposed by wind and rain particularly with the flap 22 in its closed position.

In erecting the tent 10 it will be understood that it is a very simple matter to insert frame members 15 into position adjacent to the interior of panels 11 and to attach lines 14 and ties 30 to ground stakes to secure the tent in its erected position. Thereafter flap 22 may be raised to provide a shelter or awning effect above opening 21. When dismanteling the tent 10, the procedure is the reverse. After removal of frame members 15, these are disassembled as shown in FIG. 4. The fabric body of the tent is simply folded and rolled and as shown in FIG. 7, placed into the case 34 for carrying.

The present invention thus provides a tent which is extremely simple to manufacture, to erect and is readily portable. Furthermore, the tent provides a lengthwise opening which permits a camper easy access to the tent or will permit him to sit within the interior of the tent or will permit him to sit within the interior of the tent comfortably unrestricted while he is protected from the elements above. The disclosed tent construction thus permits greater flexibility in camping in all kinds of weather and for example, would allow the camper to sit or sleep within the tent at night with the shelter flap extended in the direction of a campfire.

It will be understood that the foregoing description has been of a particular embodiment of the invention and is therefore representative. In order to appreciate fully the scope of the invention, reference must be made to the appended claims.

I claim:

1. A tent having an outer fabric shell generally of quonset shape comprising, a panel at each end of generally cross-sectional quonset shape, a flexible intermediate section lacking any frame member, said intermediate section having continuously contoured top and side walls interconnected at the ends with edge portions of said panels, a curved light-weight frame mem-

ber immediately internally adjacent to each panel, means for securing said frame members to edge portions of said panels, tension means attached for a substantial distance along the upper periphery of each of said end panels for maintaining said frame members in an upright position and to distribute tension generally along said panels and throughout said intermediate section when said panels and section are in an erected position, said intermediate section defining at least one lengthwise opening entirely unobstructed by any frame member thereof to permit ingress to the interior of said tent, said opening extending substantially for the entire length of one of said side walls to positions adjacent to each of said frame members and extending substantially from the bottom of said side wall to the top of said intermediate section, a flap for covering said opening and means for attaching said flap to close said opening against the weather.

2. The tent according to claim 1 wherein said flap is connected along an upper edge thereof to the top of said intermediate section along the upper edge of said opening, lines are attached to the opposite edge of said flap, and ground stakes are attached to said line for securing said flap in an extended position as a shelter above and outwardly of said opening.

3. The tent according to claim 2 wherein said flap includes fastener means along each side edge thereof and said tent includes fastener means to mate with said flap fastener means, said flap having a length slightly greater than the length of said opening and having a width greater than the width of said opening.

4. The tent according to claim 1 wherein said tent has four lower corners and said means for maintaining said frame members in an upright position include a ground stake and tie at each lower corner of said tent for exerting outward and longitudinal pulling forces upon each said corner, a plurality of lines connected along the upper periphery of each said panel, and a ground stake for securing said lines longitudinally outwardly of each said panel.

5. The tent according to claim 4 wherein each of said panels define vents adjacent to the upper edges thereof and a flap is connected along each of said upper edges and is connected to said lines outwardly of each of said panels to extend said flap as a shelter over said vents.

6. The tent according to claim 1 wherein two rectangular mesh panels are provided as closures for said sidewall opening, each mesh panel being connected along its upper edge to the top of said intermediate section and having about its remaining edges zipper fastening means, each of said mesh panels being adapted to be joined by said fastening means along a common centerline, and mating fastener means along adjacent side and bottom edges of said sidewall opening.

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